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BEFORE THE ARIZONA CORPORATION COMMISSION

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COMMISSIONERS:

DOUG LITTLE, Chairman
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IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR APPROVAL OF ITS 2016 RENEWABLE ENERGY STANDARD AND TARIFF IMPLEMENTATION PLAN.	DOCKET NO. E-01933A-15-0239
IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF THE PROPERTIES OF TUCSON ELECTRIC POWER COMPANY DEVOTED TO ITS OPERATIONS THROUGHOUT THE STATE OF ARIZONA AND FOR RELATED APPROVALS.	DOCKET NO. E-01933A-15-0322

NOTICE OF FILING SURREBUTTAL TESTIMONY OF MICHAEL P. GORMAN

The United States Department of Defense and all other Federal Executive Agencies ("DoD/FEA"), through undersigned counsel, hereby files the Surrebuttal Testimony of Michael P. Gorman.

Dated this 24th day of August, 2016

Arizona Corporation Commission
DOCKETED
AUG 25 2016
DOCKETED BY

Respectfully submitted,

Kyle J. Smith

General Attorney
Regulatory Law Office (JALS-RL/IP)

Office of the Judge Advocate General
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9275 Gunston Road
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For
The United States Department of Defense
And
All Other Federal Executive Agencies

CERTIFICATE OF SERVICE

The original and thirteen (13) copies of the foregoing is being transmitted Federal Express overnight delivery this 24th day of August, 2016, to be received and filed on the 25th day of August, 2016 with:

Docket Control Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Copies of the foregoing were also transmitted via regular U.S. Mail or electronic mail to all parties on the service list on this 25th day of August, 2016.

Kyle J Smith

BEFORE THE

ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF THE PROPERTIES OF TUCSON ELECTRIC POWER COMPANY DEVOTED TO ITS OPERATIONS THROUGHOUT THE STATE OF ARIZONA AND FOR RELATED APPROVALS	**DOCKET NO. E-01933A-15-0322**

Surrebuttal Testimony and Exhibits of

Michael P. Gorman

On behalf of

United States Department of Defense and all other Federal Executive Agencies

August 25, 2016

BAI

BRUBAKER & ASSOCIATES, INC.

Project 10255

BEFORE THE

ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF THE PROPERTIES OF TUCSON ELECTRIC POWER COMPANY DEVOTED TO ITS OPERATIONS THROUGHOUT THE STATE OF ARIZONA AND FOR RELATED APPROVALS	**DOCKET NO. E-01933A-15-0322**

Table of Contents to the
Surrebuttal Testimony of Michael P. Gorman

BEFORE THE

ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF THE PROPERTIES OF TUCSON ELECTRIC POWER COMPANY DEVOTED TO ITS OPERATIONS THROUGHOUT THE STATE OF ARIZONA AND FOR RELATED APPROVALS	**DOCKET NO. E-01933A-15-0322**

Surrebuttal Testimony of Michael P. Gorman

I. INTRODUCTION AND SUMMARY

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q ARE YOU THE SAME MICHAEL P. GORMAN WHO PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

A Yes. On June 3, 2016, I filed direct testimony on behalf of the United States Department of Defense and all other Federal Executive Agencies ("DoD/FEA").

Q WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A My surrebuttal testimony will provide the following:

1. I will provide and describe my opposition to the Settlement Agreement regarding revenue requirement entered into by Tucson Electric Power Company ("TEP" or "Company); the Arizona Corporation Commission Staff; Residential Utility Consumer Office; the Freeport Minerals Corporation; Arizonans for Electric Choice and Competition; Arizona Investment Council; Western Resource Advocates; Wal-mart Stores, Inc. and Sam's West, Inc.; Noble Americas Energy Solutions, LLC; Kroger Company; and Sierra Club.

2. I will respond to the rebuttal testimony of TEP witness Ann E. Bulkley.

Q PLEASE SUMMARIZE YOUR SURREBUTTAL TESTIMONY CONCERNING THE SETTLEMENT AGREEMENT REGARDING REVENUE REQUIREMENTS.

A I believe the Settlement Agreement should be rejected or modified. The Settlement Agreement is based on a return on equity of 9.75% and a fair value rate of return ("FVROR") of 5.34%, which produces an increment return on original cost rate base ("OCRB") of 1.0%.

These points of the settlement are unreasonable because 9.75% exceeds fair compensations for TEP's investment risk, and the FVROR and OCRB increment exceeds a fair return on the value of TEP's rate base.

If the Commission approves the settlement, it should be based on a return on equity on OCRB of no more than 9.5%. Further, while I disagree with the notion of a fair value increment to the original cost rate of return, if the Commission approves an FVROR of 5.10%, this would produce an FVROR increment of no more than 0.18%.

Reflecting these two modifications, the settlement revenue requirement increase of $81.5 million should be reduced down by approximately $11 million, or an increase in the gross revenue requirement of $70.4 million.

Finally, the settlement is based on a capital structure which includes 50.03% of common equity to total capital. This settlement capital structure contains a common equity ratio that is significantly in excess of the Company's actual capital structure of 48.69%. The Company's actual capital structure has supported an improvement to TEP's strong investment grade bond rating, has supported access to capital at reasonable prices and conditions to support large capital programs, and is a capital structure that is at much lower cost than the capital structure used in the settlement. The settlement's proposal for an increased common equity ratio to TEP is not justified and should be denied. Reducing or adjusting the revenue requirement to reflect TEP's current actual reasonable capital structure mix, which includes a capital structure of 48.69% common equity would further reduce the settlement revenue requirement by an additional $3.0 million.

The combined revenue requirement adjustment for a fair rate of return on fair value rate base and appropriate capital structure, would lower the settlement revenue requirement by $14.2 million.

Q PLEASE SUMMARIZE YOUR RESPONSE TO THE REBUTTAL TESTIMONY OF TEP WITNESS ANN BULKLEY.

A I find Ms. Bulkley's criticisms of my direct testimony, and her continued support for an above market return on equity for TEP to be unreasonable. Ms. Bulkley's rebuttal testimony is inappropriate for the following reasons:

1. Her criticisms of differences in proxy groups have no material impact on the estimate of a fair return on equity.

2. Her criticisms of my constant growth DCF study, sustainable growth DCF study, and multi-stage DCF study are simply without merit.

3. Her proposal to implement a risk premium study predominantly dictated by only an inverse relationship between interest rates and equity risk premiums is fundamentally flawed, inconsistent with academic findings on equity risk premiums, and overstates a fair and reasonable return for TEP.

4. Ms. Bulkley's concerns related to the CAPM and market risk premium are simply without merit. Her market risk premium estimate does not reflect the current low capital market environment, with low inflation outlooks, and therefore overstates a

fair return for TEP. Instead, Ms. Bulkley predominantly considers historical capital market costs, and much higher inflation outlooks historically, than expected prospectively, which distorts her outlooks for a fair compensation in today's marketplace.

5. Ms. Bulkley's determination of an FVROR increment is not based on observable utility security valuations in the market. Rather, she creates a hybrid between market valuations of observable securities, with economists' long-term projections of interest rates and inflation outlooks, to unjustifiably inflate a fair value increment for TEP.

All of these issues will be described later.

II. SETTLEMENT AGREEMENT OPPOSITION

Q PLEASE DESCRIBE YOUR POSITION CONCERNING THE PROPOSED SETTLEMENT AGREEMENT ON REVENUE REQUIREMENTS.

A The Company and various parties have entered into a settlement on revenue requirement issues. The settlement calls for an increase in non-fuel revenues of $81.5 million, which includes a return on equity of 9.75%, and an FVROR of 5.34%, which produces a fair value increment on rate base of 1.0%.

Q PLEASE DESCRIBE THE ISSUES YOU ARE OPPOSED TO IN THE SETTLEMENT AGREEMENT.

A A fair return on equity for TEP of 9.75% substantially exceeds its current market cost of equity. As described in my direct testimony, and as provided in greater detail below, a return on equity for TEP currently falls in the range of 8.9% to 9.7%. This return on equity is reasonably consistent with industry average returns on equity for electric utility companies. Market evidence clearly shows that the market is embracing returns on equity of 9.5% and lower for electric utility companies. With authorized returns falling to the 9.5% range, electric utilities have been able to support access to large amounts of capital under reasonable terms and prices that are used to support large capital programs. Further, the credit ratings for the electric utility industry are improving in the face of declining authorized returns on equity. All of this evidence shows that a fair return on equity for TEP is no higher than 9.5%.

The settlement prescribes a fair return on fair value rate base of 5.34%, which produces a fair value incremental return on rate base of 1.0%. This fair value incremental return is largely in line with the Company's position in this proceeding. However, the Company's proposed incremental fair value return on rate base is excessive because it is largely tied to analysts' projected capital costs expected to be incurred in the future, rather than current observable capital market costs in the market today. While I do not agree with awarding any incremental fair value return on rate base, if the Company's methodology for developing such a return is supported by the Commission, then a balanced application of the FVROR methodology would support an FVROR of 5.10% and incremental return on rate base of no more than 0.18%.

Q **IF THE COMMISSION WERE TO MODIFY THE PROPOSED SETTLEMENT TO REFLECT A FAIR RATE OF RETURN AND INCREMENTAL FAIR VALUE RETURN, HOW WOULD THAT IMPACT THE REVENUE REQUIREMENT INCREASE UNDER THE SETTLEMENT?**

A Reflecting a rate of return of no higher than 9.5%, rejecting the settlement proposed increase to TEP's capital structure, and incremental fair value return of no more than 0.18%, would reduce the settlement revenue requirement by $14.2 million. This is developed on my Exhibit MPG-23, page 3.

III. REBUTTAL TO MS. BULKLEY

Q DID MS. BULKLEY SUMMARIZE THE RECOMMENDATIONS OF THE OTHER RATE OF RETURN WITNESSES?

A Yes. Ms. Bulkley summarizes the issues she takes with the other return on equity witnesses at pages 3-12 of rebuttal testimony. Throughout her summary, she states that the opposing return on equity witnesses (which include Staff witness David Parcell, Office Residential Utility Consumer Office ("RUCO") witness Robert Mease, Wal-Mart witness Gregory Tillman and me), offer recommendations that individually and as a group are far below the returns that investors would expect for a vertically integrated electric utility company. As support for this assertion, she provides a scatter plot graph comparing the opposing witnesses' recommendations compared to the authorized returns on equity for vertically integrated utilities for the period January 1, 2013 through June 30, 2016.

Q PLEASE RESPOND TO MS. BULKLEY'S COMMENTS REGARDING THE RECOMMENDED RETURNS ON EQUITY OFFERED BY OPPOSING RETURN ON EQUITY WITNESSES.

A Ms. Bulkley's findings are based on incomplete or inaccurate data, and reflect a bias toward a higher return on equity recommendation. I base this conclusion on the following.

First, Ms. Bulkley's evaluation of authorized returns on equity limits the amount of information available to investors to inform an outlook on expected commission authorized returns on equity. Ms. Bulkley's analysis does not compare authorized returns on equity based on comparable investment risk, nor does she consider whether or not the most recent authorized returns on equity are commissions' findings for the current market cost of equity for the utilities. Indeed, some reported returns on equity are based on a settlement.

Q BASED ON A COMPLETE REVIEW OF ALL AUTHORIZED RETURNS ON EQUITY FOR CALENDAR 2015 AND JANUARY THROUGH JUNE 2016, WOULD THE OPPOSING WITNESSES' RETURNS ON EQUITY BE REASONABLE?

A Yes. As shown on the attached Exhibit MPG-24, the authorized returns on equity for integrated electric utility companies range from 9.30% to 10.30%, with an average of 9.7%.[1] As shown on page 1 of Exhibit MPG-24, I excluded authorized returns on equity for utility rate cases where the commission approved a settlement return on equity. Under these conditions, authorized returns for 2015 and 2016 averaged between 9.66% and 9.72%, with a midpoint of 9.69%. This is generally consistent with the high end of my recommended range of 8.9% to 9.7%.

Based on this expanded evaluation of the information available to investors, I believe it reasonable and rational for an investor to believe that if the Arizona Corporation Commission ("Commission") is attempting to measure the current market cost of equity for a utility in this rate case, as I believe the Commission is attempting to do here for TEP, investors would expect an authorized return on equity of approximately 9.69%, which is generally consistent with my estimated return on equity range of 8.90% to 9.70%, Further, this data demonstrates that Ms. Bulkley's originally proposed 10.35% return on equity for TEP, as well as TEP's updated request for a 10.0% return on equity are out of line with reasonable estimates of the current cost of capital for low risk electric utilities. It should be noted that not a single

[1]Excluding limited issue rider cases.

fully litigated rate case return on equity decision has fallen within Ms. Bulkley's recommended range of 10.0% to 10.6% in 2016.

Q HOW DO YOU RECOMMEND THE COMMISSION USE THIS DATA CONCERNING COMMISSION AUTHORIZED RETURNS ON EQUITY FOR ELECTRIC UTILITY COMPANIES?

A Reviewing the Commission authorized returns on equity for electric utility companies around the country, if they measure the current market cost of equity, they are another data point the Commission can use to help determine a fair and reasonable return on equity for TEP. However, this data should not be used in lieu of reasonable estimates of the current market cost of equity, nor should settlements or non-findings of current market cost of equity be used to influence the Commission on what reasonable estimates are for TEP's current cost of equity.

This market evidence shows that my estimated return on equity range is reasonable in relationship to authorized returns on equity found by other regulatory commissions around the country. While I recognize that the average is approximately at the high end of my recommended range, I encourage the Commission to carefully consider market-based estimates of the return on equity in support of a reasonable finding in this case. TEP's and other electric utilities' capital costs are at historically low levels. These low capital market costs help offset increases in electric utility rates caused by commodity prices, and increased rate base investment. In my judgment, a balanced regulatory decision reflects the increase in utilities' cost of capital, and decreases in their cost of capital. The current market environment has offered a significant decline in utilities' cost of capital, that should be considered in setting TEP's revenue requirement, and determining a fair and reasonable return on equity.

Authorized returns on equity have recognized declining capital market costs for utilities over many years recently, and continue to decline in response to these very low capital market costs. Importantly, I believe authorized returns on equity are useful information in gauging what other commissions have found to be reasonable for rate-setting purposes, but a finding on a commission authorized return on equity should be heavily weighted toward what the estimate of the current market cost of equity is for the utility in the specific case. Commissions may have had external factors in awarding returns on equity which are not relevant or useful for the Commission to determine a fair return on equity in this case.

For all these reasons, I believe that the recent awards for industry authorized returns on equity support my recommended return on equity range, and the specific circumstances of this case support my point estimate of 9.3% for TEP in this case.

Q AT PAGE 15 OF MS. BULKLEY'S REBUTTAL TESTIMONY, SHE STATES THAT CAPITAL MARKET CONDITIONS AND RISK SENTIMENT INDICATORS SHOWS THAT INVESTORS ARE FACING "GENERALLY HIGHER RISKS" AND THAT UTILITIES ARE NOT LOW RISK INVESTMENTS IN RESPONSE TO ASSERTIONS MADE IN YOUR DIRECT TESTIMONY. DO YOU HAVE ANY COMMENTS ON MS. BULKLEY'S ASSERTIONS?

A Ms. Bulkley's argument simply is in error. The risk indicator she identifies relates to general stock market investment risk, not investment risk related to below market risk of regulated utility companies. In my direct testimony, I reviewed all the observable market evidence concerning the risk of electric utility companies in the current market. Based on that review, I concluded the following:

1. Electric utility stock valuations are quite robust, and support the finding that capital market costs for electric utility companies are very low currently.

2. Authorized returns on equity have been declining but utilities' bond ratings have been improving, and their access to capital has been robust, and utilities have been able to issue capital at low prices and in significant amounts to support very large capital programs.

Q AT PAGE 20 OF MS. BULKLEY'S REBUTTAL TESTIMONY SHE COMMENTS ON HOW CAPITAL MARKET CONDITIONS SHOULD BE CONSIDERED IN SETTING TEP'S RETURN ON EQUITY. DO YOU HAVE A RESPONSE TO MS. BULKLEY'S COMMENTS?

A I agree. Indeed, I did extensive research into observable capital market evidence concerning electric utility stocks in supporting my recommended return on equity for TEP in this case. As discussed above, this includes observable evidence on rate-setting practices for utility companies, the resulting impact on their credit ratings, and the resulting impact on their access to capital to support capital programs. I also considered risk premium spreads and observable market evidence, valuations of utility securities, and various aspects of valuation metrics in determining a fair level of compensation based on today's very low capital market cost environment. All of this evidence shows that a fair and reasonable return on equity for TEP in this case is in the range of 8.9% to 9.7%.

III.A. DCF Study

Q DOES MS. BULKLEY MAKE CERTAIN CRITICISMS OF YOUR APPLICATION OF A CONSTANT GROWTH DCF ANALYSIS?

A Yes. Her primary criticism of my constant growth DCF analysis using analysts' growth rates is based on the fact that I included the DCF results of Entergy Corp. and FirstEnergy in the average of my DCF analysis because of the "extremely low" growth estimates. Ms. Bulkley states that, in her view, it is not reasonable to believe that investors would purchase shares in companies that are expected to have negative real earnings growth over the next five years. She proposes to adjust my analysis by removing the DCF results of these two companies which would increase my average constant growth DCF result from 8.71% to 9.00%.

Q **PLEASE EXPLAIN WHY MS. BULKLEY'S PROPOSAL TO EXCLUDE DCF ESTIMATES DOES NOT PRODUCE AN UNBIASED LEGITIMATE ESTIMATE OF THE CURRENT MARKET COST OF EQUITY BASED ON A DCF MODEL.**

A Ms. Bulkley's proposal to remove two low DCF results without removing high DCF results is biased methodology that does not accurately measure the central tendencies of the proxy group. Because of the possibility of having outliers, both high and low, I have included the median result in all of my DCF analyses to take into consideration when assessing the results. The median eliminates the bias of extreme outliers, high or low, and provide an additional data point to measure the reasonableness of the results. The average of my constant growth DCF analysis is 8.71%, while the median of my DCF results is 8.70%. The median, which mitigates the impact of outliers, is nearly identical to that of the average of my DCF results. If the Commission follows Ms. Bulkley's advice, the constant growth DCF estimate will be manipulated and will not be a useful and accurate data point available to measure TEP's current market cost of equity.

Additionally, contrary to Ms. Bulkley's view that it would be unreasonable for investors to buy shares in these companies, Entergy Corp's and FirstEnergy's average daily volume is 1.4 million and 4.1 million shares, respectively. Entergy shares have appreciated more than 14%, while FirstEnergy's shares have appreciated 3% year-to-date. For these reasons, the Commission should disregard Ms. Bulkley's proposed adjustments to my DCF analysis.

Q DID MS. BULKLEY ALSO MAKE COMMENTS CONCERNING YOUR SUSTAINABLE GROWTH DCF ANALYSIS?

A Yes. At page 60 of her rebuttal testimony, Ms. Bulkley states that there is academic support showing that earnings growth may not occur as the retention ratio increases, which contradicts the fundamental principles of the sustainable growth rate. Additionally, she states that, by adopting Value Line's earned return on equity, I have effectively pre-supposed the return on equity as projected by Value Line which averages 10.38%.

Q PLEASE RESPOND TO MS. BULKLEY'S CRITICISMS OF YOU SUSTAINABLE GROWTH DCF ANALYSIS.

A The sustainable growth methodology is a widely accepted method of estimating growth in utility share prices. It is particularly relevant for an electric utility company who grows earnings by making reinvestment in utility plant and equipment. Retained earnings are one source of internal growth available to utilities to invest and support investments in rate base additions. As utilities retain earnings and reinvest in new rate base assets, and the rate base grows, the rate of return on the rate base will grow and earnings will grow in lock step. Hence, Ms. Bulkley's claimed concern about the sustainable growth rate model simply has no merit generally, particularly with respect to electric utility companies.

Q PLEASE OUTLINE MS. BULKLEY'S CRITICISMS OF YOUR MULTI-STAGE GROWTH DCF MODEL.

A Ms. Bulkley's primary complaint with my multi-stage DCF analysis is the consensus long-term GDP growth rate of 4.20% I have relied on as the terminal growth rate in my analysis. She states that this growth rate is more than 110 basis points below the long-term historical growth rate. She asserts that there is support in the investment community for the use of historical real GDP growth and projected inflation as an estimate of nominal GDP growth.

Q PLEASE RESPOND TO MS. BULKLEY'S CONCERN OF YOUR GDP GROWTH OUTLOOK USING YOUR MULTI-STAGE GROWTH DCF MODEL.

A I have already responded to the inappropriateness of Ms. Bulkley's GDP growth forecast in my direct testimony at pages 57-60. There, I describe how she relies on historical real GDP growth, with a projection of future inflation to arrive at her nominal GDP growth estimate. A significant flaw in Ms. Bulkley's GDP growth forecast is that she is not reflecting consensus market participants' outlook for future real GDP growth. Historical real GDP growth is much higher than GDP growth is expected to be going forward. There can be many factors that describe this slowdown in real U.S. GDP growth, likely attributable to globalization of the world economy, and increasing the competition the U.S. economy has for selling goods and services. Whatever the exact reason, independent consensus economists that provide relevant information to investors to make real world investment decisions, are projecting real GDP growth significantly lower than Ms. Bulkley is projecting in her rate of return testimony in this proceeding.

In summary, Ms. Bulkley's outlook for real GDP growth is not reflective of consensus expert market participants and therefore overstates a reasonable estimate of what investors are relying on to make investment decisions. For these reasons, her GDP growth outlook should be rejected because it has not been shown to be reflective of rational investment outlooks, and overstates a fair rate of return for TEP.

III.B. CAPM

Q DID MS. BULKLEY COMMENT ON YOUR CAPITAL ASSET PRICING MODEL ("CAPM")?

A Yes. Ms. Bulkley took issue with my development of the market risk premium component of my CAPM. She states that I failed to reflect an inverse relationship between interest rates and market risk premia. She also states that my use of a historical market risk premium fails to accurately reflect current market conditions. She attempts to support this argument by reviewing market volatility and the change in the historical market risk premium over the 2007-2009 period. Because the historical average market risk premium fell over this time period while market volatility was increasing, she states that it is counter-intuitive and leads to an unreliable analytical result. She goes on to state that assuming a lower market risk premium during a period when interest rates are artificially suppressed by the Federal Reserve's monetary policy is at odds with the premise of the CAPM's assumption that the risk-free rate, beta coefficient, and market risk premium are consistent with market conditions and investor perceptions.

Q PLEASE RESPOND TO MS. BULKLEY'S CRITICISMS OF YOU CAPM ANALYSIS.

A Ms. Bulkley's contention that these factors were not considered when I developed my estimate of the market risk premium are simply without merit and completely contradictory to my testimony. I did consider the current market risk premium based on observable market evidence, and determining whether or not the market risk premium should be above average or below average in the current marketplace. Based on this assessment, I determined the market risk premium is above average in this marketplace, and therefore I propose to give primary consideration to my high-end market risk premium estimate. Specifically, I provide 75% weight to my high-end estimate and very minimal weight (25% weight) to the low-end estimate. The result of this weighting produced a market risk estimate of 7.9%, which is much higher than historical market risk premiums, and in line with the current market risk premium being at relatively high levels currently. Ms. Bulkley's criticisms are misguided and without merit.

Q DID MS. BULKLEY ALSO RESPOND TO YOUR CRITICISMS OF HER CAPM ANALYSIS?

A Yes, she asserts her market risk premium is based on a forward-looking approach which is based on the same methodology the FERC endorsed in Opinion 531-B as corroborating evidence to support her methodology of calculating a market risk premium. Additionally, she asserts that I was inconsistent in my position with regard to her market risk premium and my own approach to the CAPM.

Q DO YOU HAVE ANY COMMENTS FOR MS. BULKLEY'S RESPONSE?

A Ms. Bulkley's contention that her forward-looking market risk premium is reasonable on this basis alone is without merit. Rather, Ms. Bulkley's CAPM is based on a forward-looking expected return on the market which is simply unjustified. Her forward-looking return on the market is based on a DCF return on the market which is tied to a growth rate which cannot be sustained indefinitely, based on the mathematical makeup of her DCF study. The effect is that she has overstated the return on the market, and correspondingly overstated an appropriate market risk premium. A more reasonable estimate of a forward-looking return on the market would produce a more reasonable market risk premium. My methodologies produced that more reasonable market risk premium and therefore I more accurately captured a fair return on equity for TEP in this case based on a CAPM study.

III.C. Risk Premium

Q DID MS. BULKLEY COMMENT ON YOUR RISK PREMIUM STUDY?

A Yes. She makes two primary comments:

1. She states that I have provided no evidence as to why my low 5-year rolling average equity risk premium for the period ending in 1991 is meaningful in determining a forward looking cost of equity for TEP.
2. She says that the methodology ignores an inverse relationship between equity risk premiums and interest rates.

Q PLEASE RESPOND TO MS. BULKLEY'S COMMENTS CONCERNING YOUR RISK PREMIUM STUDY.

A Ms. Bulkley's criticisms are without merit for many reasons:

First, her argument that I provided no evidence as to why a 5-year average equity risk premium for the period ending in 1991 and that it is not relevant is without merit. In my direct testimony, I explained the reasoning for using a rolling average methodology as one that considers equity risk premiums over various stages of the economic cycle. No one knows with certainty what economic conditions are going to persist over the rate-effective period. Because of this, it is reasonable to consider a range of equity risk premiums. It is not the time period in which the risk premium occurred that matters. Rather, it is the fact that equity risk premiums from various positions in the business cycle have been considered. Additionally, Ms. Bulkley fails to mention that I have applied a significant overweight factor to my high-end equity risk premium.

Second, Ms. Bulkley's belief that there is an inverse relationship between interest rates and equity risk premiums is too simplistic and without merit. While interest rates and equity risk premiums are related, changes in interest rates are not the sole factor which explains changes in equity risk premiums. Rather, academic literature states that equity risk premiums change based on perceived changes in investment risk between equity investments and debt investments. It is simply not accurate nor consistent with academic literature to assume an inverse relationship between equity risk premiums and interest rates over all market periods. Academic literature is clear. This relationship changes over time, and is largely driven by changes in relative investment risk between equity and debt securities.

III.D. Proxy Group

Q DID MS. BULKLEY OFFER CERTAIN COMMENTS CONCERNING YOUR PROXY GROUP'S COMPARISON TO TEP'S INVESTMENT RISK?

A Yes. In response to my assertion that, based on bond ratings, my proxy group is risk-comparable to TEP, she states that credit ratings may indicate a broad measure of risk, credit ratings do not address risks that are applicable to equity holders.

Q DO YOU BELIEVE THAT MS. BULKLEY'S CONCLUSIONS SUGGEST THAT THE PROXY GROUP YOU USED TO ESTIMATE TEP IS NOT A REASONABLE RISK PROXY FOR TEP?

A No. Ms. Bulkley's comments do not seem to focus on investment risk. Contrary to Ms. Bulkley's assertions, a bond rating is useful in measuring equity investment risk. A utility company relies on internal cash flows to meet its debt service obligations, and to also satisfy the expected return to equity investors. Hence, while debt and equity security investors assume different risks and invest in different securities, the utility's ability to produce adequate and predictable cash flows allows the utility to meet its debt security obligations, and to meet the return expected by equity investors.

Equity investors have greater risk than bondholders because they are paid after debt holders, but nevertheless they are paid out of the same cash flows generated from utility operations. As such, there is a strong correlation between investment risk for an equity investor and bond investor.

Indeed, bond rating measures as a form of estimating a comparable risk proxy group is in my experience a widely recognized and highly utilized method of selecting proxy risk companies. For example, before the Federal Energy Regulatory

Commission ("FERC"), the bond rating is a primary benchmark used to select comparable risk companies.[2]

Ms. Bulkley's suggestion that my proxy group is not risk comparable to TEP is simply not based on credible evidence.

III.E. Capital Structure

Q WHAT CRITICISMS DOES MS. BULKLEY MAKE OF YOUR CAPITAL STRUCTURE RECOMMENDATION?

A Ms. Bulkley primarily takes issue with my capital structure recommendation because I compared my recommendation to the capital structures of my proxy group. Instead, she suggests I should have looked at the capital structures at the operating subsidiary level for the companies within my proxy group.

Q PLEASE RESPOND TO MS. BULKLEY'S CRITICISMS OF YOUR CAPITAL STRUCTURE RECOMMENDATION.

A First, my recommended capital structure is TEP's actual test year capital structure, rather than an adjusted capital structure that includes particular funding that may, or may not, occur. S&P and Moody's have issued strong credit ratings and have "stable" outlooks for TEP based on its current capital structure. There is no need for TEP to increase its retail cost of service for the sake of a larger, more expensive capital structure.

Second, I do not disagree with Ms. Bulkley in that reviewing the capital structures of the operating subsidiaries would provide a reasonable comparative basis. However, I do disagree with her position that it is inappropriate to use the

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[2] 147 FERC ¶ 61,234, Opinion 531, Order on Initial Decision at paragraphs 106-108.

holding companies' capital structures for a couple reasons. First, publicly traded holding companies are what comprise both of our proxy groups. We both use the credit ratings of the holding companies as a screen to determine a risk-comparable proxy group for TEP. Those credit ratings are driven, in part, by the capital structure at the holding company level.

Further, the authorized overall rates of return for electric utility companies noted in my testimony, support the use of a ratemaking capital structure of approximately 50% or less. As such, electric utility operating companies' capital structures do not include as much common equity capital as TEP proposes for this case, which is an adjustment to its actual level of common equity to total capital.

Moreover, the market evidence shows that TEP's actual capital structure mix is adequate and will support its current investment bond rating. Because its existing capital structure is less expensive than its proposed capital structure, TEP's proposal to increase its common equity ratio should be denied.

III.F. FVROR

Q WHAT CRITICISMS DOES MS. BULKLEY MAKE OF YOUR FVROR RECOMMENDATION?

A Ms. Bulkley states that I have not relied on consistent data to perform my calculation. She goes on to state that even though my Exhibit MPG-22 demonstrates that interest rates are expected to increase, I rely on the average of a historical nominal risk-free rate and a projected nominal risk-free rate. She proposes to adjust my FV cost rate by excluding the observable risk-free rate portion of my analysis in favor of only using a projected risk free rate analysis. In doing so, the resulting FV cost rate increases from 0.46% to 1.07%.

Q PLEASE RESPOND TO MS. BULKLEY'S CRITICISMS AND ADJUSTMENT TO YOUR FVROR CALCULATION.

A A major flaw in Ms. Bulkley's FVROR methodology is she is not relying on observable market evidence to measure a fair rate of return on a fair value rate base. Rather, she is using projected interest rates many years into the future, to capture a higher FVROR relative to that that can be competently measured by actual market evidence that exists currently.

Current market evidence is the best information available to estimate the rate of return market investors will require of TEP to fund investments in utility plant investment during the period rates determined in this proceeding will be in effect. This is a relevant time period to consider in measuring a fair rate of return for TEP, which will maintain its financial integrity and access to capital. For these reasons, Ms. Bulkley's fair value methodology should be rejected as inconsistent with market evidence, and not a reasonable measure of the current market cost of equity or overall rate of return for TEP's fair value rate base.

Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A Yes, it does.

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Tucson Electric Power Company

Settlement Gross Revenue Requirement Increase

$ Thousands

Line	Description	ACC Jurisdiction Original Cost	RCND	Fair Value	Reference
1	Adjusted Rate Base	$ 2,045,203	$3,633,028	$2,843,986	Settlement Agreement, page 3
2	Adjusted Operating Income	$ 101,666	$ 101,666	$ 101,666	Exhibit DJL-S-1, pg. 5
3	Current Rate of Return	4.97%	2.80%	3.57%	Ln. 2 / Ln. 1
4	Required Operating Income	$ 145,049	$ 145,049	$ 145,049	Ln. 7 x Ln. 1
5	Weighted Average Cost of Capital	6.91%	6.91%	6.91%	Exhibit MPG-23, pg. 2
6	Fair Value Adjustment	0.18%	-2.92%	-1.81%	Ln. 7 - Ln. 5
7	Required Rate of Return	7.09%	3.99%	5.10%	Ln. 4 / Ln. 1; Exhibit MPG-23, pg. 2
8	Operating Income Deficiency	$ 43,383	$ 43,383	$ 43,383	Ln. 4 - Ln. 2
9	Gross Revenue Conversion Factor	1.6223	1.6223	1.6223	Exhibit DJL-S-1, pg. 5
10	Increase in Gross Revenue Requirement w/ Settlement Cap Structure	$ 70,382	$ 70,382	$ 70,382	Ln. 8 x Ln. 9
11	Increase in Gross Revenue Requirement @ 9.75% ROE / 5.34% FVROR	$ 81,500	$ 81,500	$ 81,500	Exhibit MPG-23, pg. 5
12	Revenue Impact	$ (11,117)	$ (11,117)	$ (11,117)	Ln. 10 - Ln. 11

Tucson Electric Power Company

Fair Value Rate Base & Rate of Return

Line	Description	Weight (1)	Cost (2)	Weighted Cost (3)
1	Long-Term Debt	49.97%	4.32%	2.16%
2	Common Equity	50.03%	**9.50%**	4.75%
3	**Total**	**100.00%**		**6.91%**

Line	Capital	$ Millions (1)	Percent (2)	Weighted FVRB (3)
4	OCRB	$ 2,045.2	49.69%	$ 1,016.3
5	RCND	$ 3,633.0	50.31%	$ 1,827.7
6	FVRB			**$ 2,844.0**

Line	Capital	$ Millions (1)	Percent (2)	Cost Rate (3)	Weighted Cost Rate (4)
7	Long-Term Debt	$ 1,022.0	35.94%	4.32%	1.55%
8	Common Equity	$ 1,023.2	35.98%	**9.50%**	3.42%
9	Fair Value Increment	$ 798.8	28.09%	**0.46%**	0.13%
10	Total	$ 2,844.0			**5.10%**

Tucson Electric Power Company

Settlement Gross Revenue Requirement Increase

$ Thousands

		ACC Jurisdiction			
Line	Description	Original Cost	RCND	Fair Value	Reference
1	Adjusted Rate Base	$ 2,045,203	$3,633,028	$2,843,986	Settlement Agreement, page 3
2	Adjusted Operating Income	$ 102,119	$ 102,119	$ 102,119	Exhibit DJL-S-1, pg. 5 (adjusted for interest synch)
3	Current Rate of Return	4.99%	2.81%	3.59%	Ln. 2 / Ln. 1
4	Required Operating Income	$ 143,631	$ 143,631	$ 143,631	Ln. 7 x Ln. 1
5	Weighted Average Cost of Capital	6.84%	6.84%	6.84%	Exhibit MPG-23, pg. 4
6	Fair Value Adjustment	0.18%	-2.89%	-1.79%	Ln. 7 - Ln. 5
7	Required Rate of Return	7.02%	3.95%	5.05%	Ln. 4 / Ln. 1; Exhibit MPG-23, pg. 4
8	Operating Income Deficiency	$ 41,512	$ 41,512	$ 41,512	Ln. 4 - Ln. 2
9	Gross Revenue Conversion Factor	1.6223	1.6223	1.6223	Exhibit DJL-S-1, pg. 5
10	Increase in Gross Revenue Requirement w/ MPG Proposed Cap Structure	$ 67,347	$ 67,347	$ 67,347	Ln. 8 x Ln. 9
11	Increase in Gross Revenue Requirement @ 9.75% ROE / 5.34% FVROR	$ 81,500	$ 81,500	$ 81,500	Exhibit MPG-23, pg. 5
12	Revenue Impact	$ (14,152)	$ (14,152)	$ (14,152)	Ln. 10 - Ln. 11

Tucson Electric Power Company

Fair Value Rate Base & Rate of Return

Line	Description	Weight (1)	Cost (2)	Weighted Cost (3)
1	Long-Term Debt	51.31%	4.32%	2.22%
2	Common Equity	48.69%	**9.50%**	4.63%
3	**Total**	**100.00%**		**6.84%**

Line	Capital	$ Millions (1)	Percent (2)	Weighted FVRB (3)
4	OCRB	$ 2,045.2	49.69%	$ 1,016.3
5	RCND	$ 3,633.0	50.31%	$ 1,827.7
6	FVRB			**$ 2,844.0**

Line	Capital	$ Millions (1)	Percent (2)	Cost Rate (3)	Weighted Cost Rate (4)
7	Long-Term Debt	$ 1,049.3	36.90%	4.32%	1.59%
8	Common Equity	$ 995.9	35.02%	**9.50%**	3.33%
9	Fair Value Increment	$ 798.8	28.09%	**0.46%**	0.13%
10	Total	$ 2,844.0			**5.05%**

Tucson Electric Power Company

Settlement Gross Revenue Requirement Increase

$ Thousands

		ACC Jurisdiction			
Line	**Description**	**Original Cost**	**RCND**	**Fair Value**	**Reference**
1	Adjusted Rate Base	$ 2,045,203	$3,633,028	$2,843,986	Settlement Agreement, page 3
2	Adjusted Operating Income	$ 101,666	$ 101,666	$ 101,666	Exhibit DJL-S-1, pg. 5
3	Current Rate of Return	4.97%	2.80%	3.57%	Ln. 2 / Ln. 1
4	Required Operating Income	$ 151,901	$ 151,901	$ 151,901	Ln. 7 x Ln. 1
5	Weighted Average Cost of Capital	7.04%	7.04%	7.04%	Settlement Agreement, page 4
6	Fair Value Adjustment	0.39%	-2.86%	-1.70%	Ln. 7 - Ln. 5
7	Required Rate of Return	7.43%	4.18%	5.34%	Settlement Agreement, page 4
8	Operating Income Deficiency	$ 50,236	$ 50,236	$ 50,236	Ln. 4 - Ln. 2
9	Gross Revenue Conversion Factor	1.6223	1.6223	1.6223	Exhibit DJL-S-1, pg. 5
10	Increase in Gross Revenue Requirement	$ 81,500	$ 81,500	$ 81,500	Ln. 8 x Ln. 9

Tucson Electric Power Company

Breakdown of Recent ROE Decisions

Return on Equity (%)

Line	Year[1]	Vertically Integrated Settled[2]	Vertically Integrated Litigated[2]	Distribution[3] Settled	Distribution[3] Litigated	All Electric Settled	All Electric Litigated
1	2015	9.78	9.74	9.15	9.34	9.47	9.66
2	2016	9.63	9.67	9.00	9.78	9.31	9.72

Common Equity Ratio (%)

Line	Year[1]	Vertically Integrated Settled[2]	Vertically Integrated Litigated[2]	Distribution[3] Settled	Distribution[3] Litigated	All Electric Settled	All Electric Litigated
1	2015	52.00	49.03	46.00	48.75	48.57	48.98
2	2016	38.48	43.31	48.00	52.04	43.24	47.67

Note: [1]Case year by authorized date
[2]Excludes Limited Issue Rider Cases
[3]Including Transmission Cases

Source: S&P Global Market Intelligence, RRA Major Rate Case Decisions Quarterly Updates
Major Rate Case Decisions--Calendar 2015, January 14, 2016, Revised on January 19, 2016
Major Rate Case Decisions--January-June 2016, July 15, 2016

Tucson Electric Power Company

Vertically Integrated Litigated Cases

Line	Date	Company (State)	ROR %	ROE %	Common Eq. % Cap. Str.
1	1/23/2015	PacifiCorp (WY)	7.41	9.5	51.43
2	3/25/2015	PacifiCorp (WA)	7.3	9.5	49.1
3	3/26/2015	Northern States Power-Minnesota (MN)	7.37	9.72	52.5
4	4/29/2015	Union Electric (MO)	7.6	9.53	51.76
5	5/26/2015	Appalachian Pow./Wheeling Pow. (WV)	7.38	9.75	47.16
6	9/2/2015	Kansas City Power & Light (MO)	7.53	9.5	50.09
7	9/10/2015	Kansas City Power & Light (KS)	7.44	9.3	50.48
8	11/5/2015	Southern California Edison (CA)	--	--	--
9	11/19/2015	Consumers Energy (MI)	6.18	10.3	41.5
10	11/19/2015	Wisconsin Public Service (WI)	8.24	10	50.47
11	11/23/2015	Virginia Electric and Power (VA)	--	--	--
12	12/3/2015	Northern States Power-Wisconsin (WI)	7.81	10	52.49
13	12/11/2015	DTE Electric (MI)	5.7	10.3	38.03
14	12/17/2015	Southwestern Public Service (TX)	7.88	9.7	51
15	12/30/2015	PacifiCorp (WY)	7.4	9.5	51.44
16	3/16/2016	Indianapolis Power & Light Company	6.51	9.85	37.33
17	6/8/2016	El Paso Electric Company	7.67	9.48	49.29
18			**Average**	9.73	
19			**Min**	9.30	
20			**Max**	10.30	
21			**Median**	9.70	
22			**< 9.75%**	10	
23			**< 9.5%**	7	
24			**Above 9.75%**	5	

Source: S&P Global Market Intelligence, RRA Major Rate Case Decisions Quarterly Updates
Major Rate Case Decisions--Calendar 2015, January 14, 2016, Revised on January 19, 2016
Major Rate Case Decisions--January-June 2016, July 15, 2016